WHAT IS CLAIMED IS:

1. A microplate liquid handling system comprising:

a main frame body;

a dispensing mechanism including a plurality of cylinders extending side by side and in parallel with each other to provide a linear cylinder array, each cylinder having a nozzle and a plunger and each dispensing tip being attachable to each nozzle for performing suction and discharge of liquid reagent or specimen through the dispensing tips by way of each plunger;

a moving mechanism supported to the main frame body for moving the dispensing mechanism in X-axis, Y-axis, and Z-axis directions directed perpendicular to each other; and

a rotating mechanism that rotates the dispensing mechanism by a predetermined angle about a vertically directed rotation axis for changing a direction of the array of the plurality of cylinders.

2. The microplate liquid handling system as claimed in claim 1, wherein the moving mechanism comprises an X-axis member, a Y-axis member, and Z-axis member, extending in the X-axis, Y-axis, and Z-axis directions perpendicular to each other and relatively movable in the X-axis, Y-axis, and Z-axis directions.

3. The microplate liquid handling system as claimed in claim 2, wherein the rotating mechanism comprises a rotating

mechanism main body supported to the Z-axis member and rotatably supporting the dispensing mechanism, and a motor fixed to the rotating mechanism main body and connected to the dispensing mechanism, the dispensing mechanism being rotatable about the rotation axis upon rotation of the motor.

4. The microplate liquid handling system as claimed in claim 2, wherein the dispensing mechanism is rotatably supported to the Z-axis member, and

wherein the rotating mechanism comprises a disc member disposed coaxial with the rotation axis of the dispensing mechanism, and an abutment member fixed to the main frame body and extending in a direction parallel to one of the X-axis and the Y-axis, the disc member being selectively contactable with the abutment member, the dispensing mechanism being rotatable about the rotation axis upon movement of the dispensing mechanism in one of the X-axis direction and the Y-axis direction by the moving mechanism.

5. The microplate liquid handling system as claimed in claim 1, wherein the dispensing mechanism is detachably provided to the rotating mechanism.

6. The microplate liquid handling system as claimed in claim 1, wherein the dispensing mechanism further comprises a driving unit for moving the plungers up and down.

7. The microplate liquid handling system as claimed in claim 6, wherein the plurality of cylinders have vertical

axes extending vertically, and spaced away from each other by an even pitch, and

wherein each dispensing tip is detachably connected to each nozzle; and

wherein each nozzle is provided at each lower end of the cylinder and has a discharge hole opened vertically downwards, and

wherein each plunger is provided at each upper end of the cylinder, suction and discharge of liquid into and from each dispensing tip being effected upon vertical movement of each the plunger.

8. The microplate liquid handling system as claimed in claim 7, wherein the rotation axis is positioned in coincidence with a longitudinal center of the cylinder array.

9. The microplate liquid handling system as claimed in claim 1, wherein the cylinders is twelve in number.

10. The microplate liquid handling system as claimed in claim 1, further comprising a microcapsule plate having a plurality of wells arranged in 12 x 8 matrix, each dispensing tip discharging a liquid onto each well.

11. The microplate liquid handling system as claimed in claim 10, further comprising:

a first dispensing tip container capable of containing 12 x 8 dispensing tips in a matrix fashion for permitting the nozzles to be attached with a first dispensing tip array

when the cylinder array is directed in the Y-axis direction; and

a second dispensing tip container capable of containing 12 x 8 dispensing tips in a matrix fashion for permitting the nozzles to be attached with a second dispensing tip array when the cylinder array is directed in the X-axis direction.

12. The microplate liquid handling system as claimed in claim 1, further comprising:

a first reagent vessel storing a reagent to be supplied to the dispensing tips when the cylinder array is directed in a first direction; and

a second reagent vessel storing a reagent to be supplied to the dispensing tips when the cylinder array is directed in a second direction different from the first direction.